UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------|------------------------------------|-------------------------------|---------------------|------------------|
| 10/725,459 | 12/03/2003 | Masaki Shiraishi | 0229-0785P | 4041 |
| BIRCH STEW PO BOX 747 | 7590 05/30/200 ART KOLASCH & BI | EXAMINER PRETLOW, DEMETRIUS R | | |
| FALLS CHURCH, VA 22040-0747 | | | ART UNIT | PAPER NUMBER |
| | | | 2863 | |
| • | | | | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 05/30/2007 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

| Application No. Applicant(s) Application No. Applicant(s) Applicant(s) SHRAISHI, MASAKI Examiner Demetrius R. Pretiow 2863 SHRAISHI, MASAKI Examiner Demetrius R. Pretiow 2863 SHRAISHI, MASAKI Examiner Demetrius R. Pretiow 2863 SHRAISHI, MASAKI Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Elementer of time may be available under the provisions of 37 CFR 1.13(6), in row event, however, may a right be three pitch with 30 km 20 | | | | | | | | |
|---|--|---|---|--|--|--|--|--|
| ### Demetrius R. Pretlow 2863 ### Time MAILING DATE of this communication appears on the cover sheet with the correspondence address ### Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. #### Experience of tree may be available under the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed. #### IN Operation for reply is specified body. The arrantmentation of 17 CFR 1.138(a). In no event, however, may a reply be timely filed. #### IN Operation for reply septime from the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed. #### IN Operation for reply septime above. The maximum attachy period will apply a will apply set (M) MONTHS from the mailing date of this communication. #### IN Operation for reply septime as one vehicle principle of the formal date of the communication. Even if timely filed, may reduce any sentenced patent term adjustment. See 37 CFR 1.74(b). #### Status #### IN Operation is communication for reply will, by statute, cause the application to become ABANDONED (39 U.S.C. § 133). #### Responsive to communication(s) filed on 27 February 2007. #### Responsive to communication(s) filed on 27 February 2007. #### Responsive to communication for reply will, by statute, cause the application. #### Responsive to communication for reply will, by statute, cause the application is condition for fallowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. #### Disposition of Claims #### A Statute is application in in condition for fallowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. #### Disposition of Claims #### A Statute is a statute of the application in the application in the provision of the applicat | | Application No. | Applicant(s) | | | | | |
| Demetrius R. Pretlow 2853 Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. **THE MONTH IS MAILING DATE of THIS COMMUNICATION.** **THE MONTH IS MAILING DATE of THIS COMMUNICATION.** **THE MONTH IS more hearing date chis commenciation.** **If NO period for reply is specified above, the maximum stantiony period will apply and will aspire SX (6) MONTHS from the maining date of this commenciation. **If NO period for reply is specified above, the maximum stantiony period will apply and will aspire SX (6) MONTHS from the maining date of this communication. **Faller to replan with the side of the maining date of this communication, the stanting date of this communication, when it through flow, may reduce any operand patient term adjustment. See 37 CFR 1.704(b). **Status** **This action is FINAL.** **Zhi This action is final through flow, may reduce any operation and the stanting date of this communication. **All Claim(s) 1.33-12.41-416 is/are reported under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. **Disposition of Claims** **All Claim(s) 1.33-12.41-416 is/are rejected.** **This date is a subject to the stanting is a subject to the stanting is a subject to subject to the stanting is a subject to subject | | 10/725,459 | SHIRAISHI, MASAKI | | | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address — Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensives of time may be available under the provisions of 37 CFR 1.13(6), in no event, however, may a reply be timely filled. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (3) MONTHS from the maling date of this communication. Failure to reply willin the set or centered gend of or reyl, will, by status, cause the spillcation to become ARANOCHO 13 u.S. C. § 131. Any reply recived by the Office later than these months after the maling date of this communication, even if timely filed, may reduce any enterplaced than application is application. 1) Responsive to communication(s) filed on 27 February 2007. 20 | Office Action Summary | Examiner | Art Unit | | | | | |
| Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, horwers, may a religible termity filed Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, horwers, may a religible termity filed If NO period for reply is specified above, the maximum statutory period will apply and will expire X(b) (MONTHS from the mailing date of this communication, even if timely liked, may reduce any statute period by the provision of the special point of the provision of the communication, even if timely liked, may reduce any statute and plantered. 23c 97 CFR 1.136(a). Status 1) Responsive to communication(s) filed on 27 February 2007. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-3.5-12 and 14-16 is/are pending in the application. 4a) Of the above claim(s) is/are allowed. 6) Claim(s) is/are allowed. 6) Claim(s) is/are allowed. 6) Claim(s) is/are objected to. 7) Claim(s) is/are objected to. 8) Claim(s) is/are objected to by the Examiner. 10) The praving(s) filed on is/are: a) accepted or b) objected to by the Examiner. Application Papers 9) The specification is objected to by the Examiner. 10) The oration drawing sheet(s) including the correction is required if the drawing(s) is objected to. Se 37 CFR 1.121(d). 11) Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. | | | | | | | | |
| WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.13(c), then event, however, may a caply be timely filed where 5X (6) MONTHS from the mailing date of this communication. Failing to reprove which the act or communication of the communic | | | | | | | | |
| 1)⊠ Responsive to communication(s) filed on 27 February 2007. 2a)□ This action is FINAL. 2b)⊠ This action is non-final. 3)□ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4)☑ Claim(s) 1-3.5-12 and 14-16 is/are pending in the application. 4a) Of the above claim(s) | WHICHEVER IS LONGER, FROM THE MAILING Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory perions Failure to reply within the set or extended period for reply will, by state Any reply received by the Office later than three months after the main | DATE OF THIS COMMUNIC. 1.136(a). In no event, however, may a report will apply and will expire SIX (6) MONTI oute, cause the application to become ABA | ATION. bly be timely filed HS from the mailing date of this communication. NDONED (35 U.S.C. § 133). | | | | | |
| 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-3.5-12 and 14-16 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) is/are allowed. 6) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). *See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 5) Notice of Informal Patent Application | Status | | | | | | | |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-3.5-12 and 14-16 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-3.5-12.1-16 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). *See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 5) Notice of Informal Patent Application | 1) Responsive to communication(s) filed on 27 | Responsive to communication(s) filed on <u>27 February 2007</u> . | | | | | | |
| Closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) ○ Claim(s) 1-3.5-12 and 14-16 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) ○ Claim(s) is/are allowed. 6) ○ Claim(s) is/are allowed. 7) ○ Claim(s) is/are objected to. 8) ○ Claim(s) is/are objected to. 8) ○ Claim(s) is/are objected to. 9) ○ The specification is objected to by the Examiner. 10) ○ The drawing(s) filed on is/are: a) ○ accepted or b) ○ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ○ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ○ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ○ All b) ○ Some * c) ○ None of: 1. ○ Certified copies of the priority documents have been received. 2. ○ Certified copies of the priority documents have been received in Application No 3. ○ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ○ Notice of References Cited (PTO-892) 2) ○ Notice of Draftsperson's Patent Orange Review (PTO-948) 3) ○ Information Disclosure Statement(s) (PTO/SB/08) 5) ○ Notice of Informal Patent Application | 2a) This action is FINAL . 2b) ⊠ Th | | | | | | | |
| Disposition of Claims 4) ☐ Claim(s) 1-3.5-12 and 14-16 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) is/are objected to. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) ☐ The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some * c) ☐ None of: 1 ☐ Certified copies of the priority documents have been received in Application No 3 ☐ Copies of the certified copies of the priority documents have been received in Application No 3 ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☐ Notice of References Cited (PTO-892) 2) ☐ Nomination Disclosure Statement(s) (PTO/SB/08) 5) ☐ Notice of Informal Patent Application | • | | | | | | | |
| 4) | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. 5) □ Claim(s) is/are allowed. 6) ☒ Claim(s) is/are objected to. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/or election requirement. Application Papers 9) □ The specification is objected to by the Examiner. 10) □ The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) □ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) □ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) □ All b) □ Some * c) □ None of: 1. □ Certified copies of the priority documents have been received. 2. □ Certified copies of the priority documents have been received in Application No 3. □ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☑ Notice of References Cited (PTO-892) Notice of Pattsperson's Patent Drawing Review (PTO-948) 3) □ Interview Summary (PTO-413) Paper Notice of Informal Patent Application | Disposition of Claims | | | | | | | |
| 5) Claim(s) is/are allowed. 6) Claim(s) 1-3,5-12,14-16 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Intormation Disclosure Statement(s) (PTO/SB/08) 1) Notice of Informal Patent Application | 4)⊠ Claim(s) <u>1-3,5-12 and 14-16</u> is/are pending in the application. | | | | | | | |
| 6) Claim(s) 1-3.5-12.14-16 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) | 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | | |
| 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some col None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) 5) Notice of Informal Patent Application | 5) Claim(s) is/are allowed. | | | | | | | |
| 8) Claim(s) are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some c) None of: 1 Certified copies of the priority documents have been received. 2 Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) 5) Notice of Informal Patent Application | | | | | | | | |
| Application Papers 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) 5) Notice of Informal Patent Application | | | | | | | | |
| 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) Notice of Oraftsperson's Patent Drawing Review (PTO-948) 3 In Information Disclosure Statement(s) (PTO/SB/08) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date 5) Notice of Informal Patent Application | 8) Claim(s) are subject to restriction and/or election requirement. | | | | | | | |
| 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) Attachment(s) Attachment(s) Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Attachment(s) Information Disclosure Statement(s) (PTO/SB/08) | Application Papers | | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some col None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Attachment(s) Notice of Informal Patent Application | 9) The specification is objected to by the Exami | ner. | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) | 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. | | | | | | | |
| 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☐ Notice of References Cited (PTO-892) 2 ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) 10 ☐ Notice of Informal Patent Application | | | | | | | | |
| Priority under 35 U.S.C. § 119 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) ☐ All b) ☐ Some * c) ☐ None of: 1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☑ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) 1 Notice of Informal Patent Application | | | | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) 5) Notice of Informal Patent Application | 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | | |
| a) | Priority under 35 U.S.C. § 119 | | | | | | | |
| 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) 1 Information Disclosure Statement(s) (PTO/SB/08) | | | | | | | | |
| 2. ☐ Certified copies of the priority documents have been received in Application No 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☒ Notice of References Cited (PTO-892) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) 5) ☐ Notice of Informal Patent Application | ·— | | | | | | | |
| 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) ☑ Notice of References Cited (PTO-892) 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) ☐ Information Disclosure Statement(s) (PTO/SB/08) 5) ☐ Notice of Informal Patent Application | | | | | | | | |
| * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) * Interview Summary (PTO-413) Paper No(s)/Mail Date. 5) Notice of Informal Patent Application | | | | | | | | |
| Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date. 5) Notice of Informal Patent Application | | | | | | | | |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date. 5) Notice of Informal Patent Application | | | | | | | | |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date. 5) Notice of Informal Patent Application | | | | | | | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date Notice of Informal Patent Application | Attachment(s) | | | | | | | |
| 3) Information Disclosure Statement(s) (PTO/SB/08) 5) Notice of Informal Patent Application | | | | | | | | |
| | 3) Information Disclosure Statement(s) (PTO/SB/08) | 5) 🔲 Notice of Inf | ormal Patent Application | | | | | |

Art Unit: 2863

DETAILED ACTION

Claim Objections

Claim 8 is objected to because of the following informalities:

In claim 8, line 18, it appears that --at-- should be inserted between "is" and "each".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 and 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwajima et al. (US 6,692,089) in view of Meyer (US 6,038,933). In reference to claim 1, Kuwajima et al. teach obtaining data on a relationship between the force exerted on the vehicle wheel and a physical parameter of the vehicle wheel at at least one predetermined measuring position. Note column 5, lines 60-64. Kuwajima et al. does not explcitly teach making deriving a formula that calculates the physical parameter in terms of the magnitude of the force exerted on the vehicle wheel, using the obtained data on the relationship, however this would be inherent to the ecu which calculates slip

Art Unit: 2863

ratio. Note column 9, lines 42-23. Kuwajima et al. teach measuring the physical parameter of the vehicle wheel during rolling. Note Kuwajima et al. column 6, lines 31-33. Kuwajima et al. teach computing the formula (inherent) using the measured physical parameter to calculate the force (slip ratio) Note column 9, lines; and Kuwajima et al. teach outputting the calculated force. Note column 9, lines 50-57.

Kuwajima et al. does not teach the physical parameter is the magnitude of a radial strain in the radius part.

Meyer (US 6,038,933) teach physical parameter is the magnitude of a radial strain in the radius part. Note Meyer column 3, lines 18-24.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Kuwajima et al. to include the teaching of Meyer because it would allow force and moment to be measured in plural directions.

Note column 1, lines 50-51.

In reference to claim 2, Kuwajima et al. teach wherein the force is torque. Note Figure 6.

In reference to claim 3, Kuwajima et al. teach the radially outermost annular ground contacting part is a tire (Note column 2, lines 55-56), and the radius part is a wheel disk of a wheel on which the tire is mounted (inherent to the wheel of Kuwajima et al.).

In reference to claim 5, Kuwajima et al. does not teach said at least one predetermined measuring position is a twelve-o'clock position (P3), three-o'clock

Art Unit: 2863

position (P4), six-o'clock position (P 1) and nine-o'clock position (P2) which are arranged at every 90 degrees around the rotational axis of the vehicle wheel.

Meyer et al. teach said at least one predetermined measuring position is a twelve-o'clock position (P3), three-o'clock position (P4), six-o'clock position (P 1) and nine-o'clock position (P2) which are arranged at every 90 degrees around the rotational axis of the vehicle wheel. Note Meyer column 3, lines 28-29 and Figure 1, sensor 44.

Claims 6,-8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwajima et al. (US 6,692,089) in view of Landsness (4,171,641). In reference to claim 6, Kuwajima et al. teach obtaining data on a relationship between the force exerted on the vehicle wheel and a physical parameter of the vehicle wheel at at least one predetermined measuring position. Note column 5, lines 60-64. Kuwajima et al. does not explcitly teach making deriving a formula that calculates the physical parameter in terms of the magnitude of the force exerted on the vehicle wheel, using the obtained data on the relationship, however this would be inherent to the ecu which calculates slip ratio. Note column 9, lines 42-23. Kuwajima et al. teach measuring the physical parameter of the vehicle wheel during rolling. Note Kuwajima et al. column 6, lines 31-33. Kuwajima et al. teach computing the formula (inherent) using the measured physical parameter to calculate the force (slip ratio) Note column 9, lines; and Kuwajima et al. teach outputting the calculated force. Note column 9, lines 50-57.

Kuwajima et al. does not teach the measuring of the physical parameter includes: locating a sensor for the physical parameter which is fixed to the radius part; and the measuring of the physical parameter includes: locating a sensor for the physical

parameter which is fixed to the radius part; and reading the sensor when the sensor is at said at least one predetermined measuring position

Landsness teach the measuring of the physical parameter includes: locating a sensor for the physical parameter which is fixed to the radius part; and the measuring of the physical parameter includes: locating a sensor for the physical parameter which is fixed to the radius part; Note column 2, lines 49-68. and Landsness teach reading the sensor when the sensor is at said at least one predetermined measuring position (inherent). Note column 2, lines 49-68.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Kuwajima et al. to include the teaching of Landsness because it would correct for imbalance forces. Note Landsness column 1, line 49-50.

In reference to claim 16, Kuwajima et al. does not teach wherein said physical parameter is the magnitude of radial strain on the radius part of the vehicle wheel.

Landsness teach wherein said physical parameter is the magnitude of radial strain on the radius part of the vehicle wheel. Note Landsness column 2, lines 61-68.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Kuwajima et al. to include the teaching of Landsness because it would correct for imbalance forces. Note Landsness column 1, line 49-50.

In reference to claim 7, Kuwajima et al. teach obtaining data on a relationship between the force exerted on the vehicle wheel and a physical parameter of the vehicle wheel at at least one predetermined measuring position. Note column 5, lines 60-64. Kuwajima et al. does not explcitly teach making deriving a formula that calculates the physical parameter in terms of the magnitude of the force exerted on the vehicle wheel, using the obtained data on the relationship, however this would be inherent to the ecu which calculates slip ratio. Note column 9, lines 42-23. Kuwajima et al. teach measuring the physical parameter of the vehicle wheel during rolling. Note Kuwajima et al. column 6, lines 31-33. Kuwajima et al. teach computing the formula (inherent) using the measured physical parameter to calculate the force (slip ratio) Note column 9, lines ; and Kuwajima et al. teach outputting the calculated force. Note column 9, lines 50-57.

Kuwajima et al. does not teach the measuring of the physical parameter includes: locating a sensor for the physical parameter which is fixed to the radius part; and the measuring of the physical parameter includes: locating a plurality of sensors for the physical parameter which is fixed to the radius part; and reading each said sensor when the sensor is at at least one predetermined measuring position

Landsness teach the measuring of the physical parameter includes: locating a sensor for the physical parameter which is fixed to the radius part; and the measuring of the physical parameter includes: locating a plurality of sensors for the physical parameter which is fixed to the radius part; Note column 2, lines 49-68. and Landsness teach reading each said sensor when the sensor is at said at least one predetermined measuring position (inherent). Note column 2, lines 49-68.

Art Unit: 2863

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Kuwajima et al. to include the teaching of Landsness because it would correct for imbalance forces. Note Landsness column 1, line 49-50.

Page 7

In reference to claim 8, Kuwajima et al. teach obtaining data on a relationship between the force exerted on the vehicle wheel and a physical parameter of the vehicle wheel at at least one predetermined measuring position. Note column 5, lines 60-64. Kuwajima et al. does not explcitly teach making deriving a formula that calculates the physical parameter in terms of the magnitude of the force exerted on the vehicle wheel, using the obtained data on the relationship, however this would be inherent to the ecu which calculates slip ratio. Note column 9, lines 42-23. Kuwajima et al. teach measuring the physical parameter of the vehicle wheel during rolling. Note Kuwajima et al. column 6, lines 31-33. Kuwajima et al. teach computing the formula (inherent) using the measured physical parameter to calculate the force (slip ratio) Note column 9, lines; and Kuwajima et al. teach outputting the calculated force. Note column 9, lines 50-57.

Kuwajima et al. does not teach the measuring of the physical parameter includes: locating a sensor for the physical parameter which is fixed to the radius part; and the measuring of the physical parameter includes: locating a plurality of sensors for the physical parameter which is fixed to the radius part; and reading each said sensor when the sensor is at each of the predetermined measuring position

Art Unit: 2863

Landsness teach the measuring of the physical parameter includes: locating a plurality of sensors for the physical parameter which is fixed to the radius part; and the measuring of the physical parameter includes: locating a sensor for the physical parameter which is fixed to the radius part; Note column 2, lines 49-68, and Landsness teach reading each said sensor when the sensor is at each of the predetermined measuring position (inherent). Note column 2, lines 49-68.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Kuwajima et al. to include the teaching of Landsness because it would correct for imbalance forces. Note Landsness column 1, line 49-50.

Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer (US 6,038,933) in view of Landsness (4,171,641). Meyer teach at least one sensor for measuring a physical parameter of the vehicle wheel during rolling, said at least one sensor being attached to the radius part. Note column 3, lines 18-24. Meyer does not explicitly teach a memory in which a formula that calculates the physical parameter in terms of the force exerted on the vehicle wheel at at least one predetermined measuring position is stored, however this would be inherent to the controller (82). Note column 6, lines 50-54. Meyer et al. teach a processor (82) which, using data on the physical parameter read from said at least one sensor, computes the formula (inherent) to calculate the force and output data on the force. Note column 6, lines 50-54.

Art Unit: 2863

Meyer does not teach a device for locating said at least one sensor in order to measure the physical parameter when the sensor is at the predetermined measuring position.

Landsness teach a device (encoder 37) for locating said at least one sensor in order to measure the physical parameter when the sensor is at the predetermined measuring position. Note column 2, lines 50-53.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Meyer to include the teaching of Landsness because it would correct for imbalance forces. Note Landsness column 1, line 49-50.

In reference to claim 10, Meyer teach said physical parameter is the magnitude of radial strain on the radius part of the vehicle wheel. Note column 3, lines 18-24.

In reference to claim 11, Meyer teach said at least one sensor is one sensor fixed to the radius part of the vehicle wheel. Note column 3, lines 18-24.

In reference to claim 12, Meyer teach said at least one sensor is a plurality of sensors arranged around the rotational axis of the vehicle wheel and fixed to the radius part of the vehicle wheel. Note claim 5.

In reference to claim 13, Meyer teach wherein said force is at least one of a vertical force. Note column 5, line 62.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer (US6,038,933) in view of Landsness (US 4,171,641), and further in view of Kuwajima et al. (US 6,692,089). Meyer teach the limitations above.

Art Unit: 2863

Meyer does not teach the device according to claim 9 to determine a breaking force during braking, a braking mechanism for the vehicle wheel; and a controller for controlling the braking mechanism so that the breaking force becomes a maximum during braking

Kuwajima et al. teach the device according to claim 9 to determine a braking force during braking, a braking mechanism (18) for the vehicle wheel; and a controller (10) for controlling the braking mechanism so that the breaking force becomes a maximum during braking. Note column 6, lines 18-24 and Note column 10, lines 25-33.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Meyer to include the teaching of Kuwajima et al. because it would reduce a time lag before the control starts to reduce a braking distance. Note Kuwajima et al. column 2, lines 49-50.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Demetrius R. Pretlow whose telephone number is (571) 272-2278. The examiner can normally be reached on Mon.-Fri. 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Application/Control Number: 10/725,459 Page 11

Art Unit: 2863

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Demetrius R. Pretlow

Went Post 5/18/07

Patent Examiner

HALWACHSMAN'S PRIMARY EXAMINER